

In the Claims:

Please amend the claims as indicated hereafter.

1. (Currently Amended) A network router, comprising:

a layer 1 portion having a first communication interface and a second communication interface, said first communication interface configured to communicate with a first network over a first data path and said second communication interface configured to communicate with a second network over a second data path;

a layer 2 portion;

a layer 3 portion having a routing table specifying, for a particular destination, a data path from said layer 3 portion to said layer 2 portion, said layer 3 portion configured to provide a plurality of data packets destined for [[a]] the particular destination and to route through said data path each of said data packets based on said routing table; and

~~a layer 2 portion configured to interface at least one of said data packets with said first communication interface; and~~

switching logic configured to automatically initiate a layer 2 switch such that said layer 2 portion begins to interface said data packets with said second communication interface in lieu of said first communication interface, wherein said layer 2 switch is transparent to said layer 3 portion, and wherein said layer 2 portion is configured to interface at least one of said data packets with said first communication interface prior to said layer 2 switch.

2. (Currently Amended) The router of claim 1, where said switching logic is configured to automatically initiate said layer 2 switch in response to a detection of an error condition associated with said first data path, and wherein said switching logic is further configured to automatically initiate another layer 2 switch, in response to a detection that said error condition is resolved, such that said layer 2 portion begins to interface said data packets with said first communication interface in lieu of said second communication interface.

3. (Original) The router of claim 1, wherein said second communication interface is configured to communicate using point-to-point protocol (PPP).

4. (Original) The router of claim 1, wherein said first data path comprises a T1 link.

5. (Original) The router of claim 4, wherein said second communication interface comprises a modem.

6. (Currently Amended) A network router, comprising:

a first layer 3 protocol stack configured to provide a plurality of data packets to be transmitted by said router to a particular destination, the layer 3 protocol stack having a routing table specifying, for said particular destination, a data path for routing said plurality of data packets, the layer 3 protocol stack configured to insert, into each of said plurality of data packets, route information indicative of said data path based on said routing table;

a second first layer 2 protocol stack;

a third second layer 2 protocol stack;

a plurality of layer 3 network interfaces configured to receive data packets from said first layer 3 protocol stack, wherein said first layer 3 protocol stack is configured to provide each of said plurality of data packets to one of said layer 3 network interfaces; and

layer 2 switching logic configured to receive each of said plurality of data packets from said one layer 3 network interface, said layer 2 switching logic configured to provide at least one of said plurality of data packets to said second first layer 2 protocol stack such that said at least one of said plurality of data packets is transmitted via a primary network, said layer 2 switching logic configured to perform a layer 2 switch and to provide, in response to a detection of an error condition, condition such that said layer 2 switching logic provides, in response to said detection, at least one other of said plurality of said data packets to said third second layer 2 protocol stack such that said at least one other of said plurality of data packets is transmitted via a secondary network, wherein said layer 2 switch is transparent to said layer 3 protocol stack.

7. (Currently Amended) The system of claim 6, further comprising:

a first communication interface configured to transmit, over ~~a first data path~~ said primary network to said particular destination, each of said plurality of data packets provided to said ~~second~~ first layer 2 protocol stack; and

a second communication interface configured to transmit, over ~~a second data path~~ said secondary network to said particular destination, each of said plurality of data packets provided to said ~~third~~ second layer 2 protocol stack.

8. (Original) The system of claim 7, wherein said protocol stacks, said network interfaces, said switching logic, and said communication interfaces are each integrated within a housing unit.

9. (Canceled)

10. (Currently Amended) The router of claim 6, wherein said layer 2 switching logic is configured to provide at least one of said plurality of data packets to said ~~second~~ first layer 2 protocol stack in response to a determination that said error condition has been resolved.

11. (Currently Amended) A method for use in a network router, comprising the steps of:
providing, from a layer 3 portion of said network router, data packets destined for a particular destination, said layer 3 portion including a routing table specifying route information for said data packets;

inserting said route information into each of said data packets;

interfacing a first plurality of said data packets with a first communication interface of a layer 1 portion of said network router;

communicating said first plurality of data packets from said first communication interface over a primary data path;

detecting an error condition associated with said primary data path;

automatically performing a layer 2 switch in response to said error condition;

interfacing, in response to said layer 2 switch, a second plurality of said data packets with a second communication interface of said layer 1 portion; and

communicating said second plurality of data packets from said second communication interface over a backup data path,

wherein said layer 2 switch is transparent to said layer 3 portion.

12. (Original) The method of claim 11, further comprising the steps of:

automatically initiating a second layer 2 switch in response to a detection that said error condition has been resolved;

interfacing, in response to said second layer 2 switch, a third plurality of said data packets with said first communication interface; and

communicating said third plurality of data packets from said first communication interface over said primary data path.

13. (Original) The method of claim 11, wherein said communicating said second plurality of data packets is performed using point-to-point protocol (PPP).

14. (Original) The method of claim 11, wherein said second communication interface comprises a modem.

15. (Original) The method of claim 14, wherein said primary data path comprises a T1 link.

16. (Currently Amended) A method for use in a network router, comprising the steps of:
using a layer 3 protocol stack within said network router to provide a plurality of data packets destined for a particular destination, said layer 3 protocol stack including a routing table specifying route information for said plurality of data packets;

inserting said route information into each of said plurality of data packets;

transmitting said data packets from a first layer 1 communication interface over a primary data path and from a second layer 1 communication interface over a backup data path;

transmitting each of said data packets to one of a plurality of layer 3 network interfaces within said network router;

detecting an error condition associated with said primary data path;

transmitting said data packets from said one layer 3 network interface to a plurality of layer 2 protocol stacks within said network router; and

controlling which of said layer 2 protocol stacks receives each of said data packets based on said detecting step without updating said layer 3 protocol stack based on said detecting step,

wherein each of said data packets received by a first one of said layer 2 protocol stacks is transmitted over said primary data path and each of said data packets received by a second one of said layer 2 protocol stacks is transmitted over said backup data path.

17. (New) The router of claim 1, wherein said layer 3 portion is configured to insert, into each of said data packets, the same route information based on said routing table.